

No.

200100285



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

## USDA - Agriculture Research Service

Whereas, THERE HAS BEEN PRESENTED TO THE

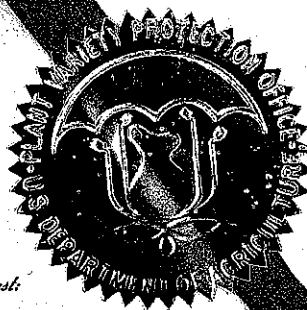
Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE VARIETY (34 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'N7101'



In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this ninth day of April, in the year two thousand two.

Attest:

*[Signature]*

Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

*[Signature]*

Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE  
(instructions and information collection burden statement on reverse)

The following state ments are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

<b>1 NAME OF OWNER</b> USDA- Agricultural Research Service		<b>2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME</b> NTCPR92-100		<b>3. VARIETY NAME</b> N7101	
<b>4 ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)</b> 3127 Ligon St. Box 7631 Raleigh NC 27607		<b>5. TELEPHONE (include area code)</b> (919) 513-1480		<div style="border: 1px solid black; padding: 5px;"> <b>FOR OFFICIAL USE ONLY</b>  <b>RVPO NUMBER</b>  <div style="font-size: 2em; font-weight: bold;">200100285</div> </div>	
<b>6. FAX (include area code)</b> (919) 856-4598		<b>7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.)</b> USDA-ARS (Gov. Agency)			
<b>8. IF INCORPORATED, GIVE STATE OF INCORPORATION</b>		<b>9. DATE OF INCORPORATION</b>		<b>FILING DATE</b> 9/14/2001	
<b>10 NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers)</b> 3127 Ligon St. Box 7631 Raleigh NC 27607					<div style="border: 1px solid black; padding: 5px;"> <b>FILING AND EXAMINATION FEES:</b>                  \$ 2,705.00  <b>DATE</b> 9/14/2001  <b>CERTIFICATION FEE:</b>                  \$ 320.00  <b>DATE</b> 2/27/02             </div>
<b>11 TELEPHONE (Include area code)</b> (919) 513-1480	<b>12. FAX (Include area code)</b> (919) 85604598	<b>13. E_MAIL</b> tommy_carter@ncsu.edu		<b>14. CROP KIND (Common Name)</b> soybean	
<b>15 GENUS AND SPECIES NAME OF CROP</b> Glycine max		<b>16. FAMILY NAME (Botanical)</b> Leguminosae		<b>17. IS THE VARIETY A FIRST GENERATION HYBRID?</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
<b>18 CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)</b> a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d. <input type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. <input type="checkbox"/> Filing and Examination Fee (\$2,450), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)			<b>19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 83(a) of the Plant Variety Protection Act)</b> <input checked="" type="checkbox"/> YES (If "yes", answer items 20 and 21 below) <input type="checkbox"/> NO (If "no," go to item 22)		
<b>20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?</b> <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			<b>21. IF "YES" TO ITEM 20, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?</b> <input checked="" type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED		
			<b>22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)		
<b>23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)?</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)			<b>24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.</b> The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.		
<b>SIGNATURE OF OWNER</b> Thomas E. Carter, Jr.			<b>SIGNATURE OF OWNER</b>		
<b>NAME (Please print or type)</b> Thomas E. Carter, Jr.			<b>NAME (Please print or type)</b>		
<b>CAPACITY OR TITLE</b> Research Geneticist		<b>DATE</b> 2-01-01		<b>CAPACITY OR TITLE</b>	
<b>DATE</b>		<b>DATE</b>		<b>DATE</b>	

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICEAPPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE  
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME		3. VARIETY NAME  N7101	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)		5. TELEPHONE (include area code)		FOR OFFICIAL USE ONLY	
		6. FAX (include area code)		PVPO NUMBER	
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.)		8. IF INCORPORATED, GIVE STATE OF INCORPORATION		9. DATE OF INCORPORATION	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers)				FILING AND EXAMINATION FEES:  \$  DATE  CERTIFICATION FEE:  \$  DATE	
11. TELEPHONE (include area code)		12. FAX (include area code)		13. E-MAIL	
14. CROP KIND (Common Name)					
18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)  a. <input type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input type="checkbox"/> Exhibit B. Statement of Distinctness c. <input type="checkbox"/> Exhibit C. Objective Description of Variety d. <input type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. <input type="checkbox"/> Filing and Examination Fee (\$2,705), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)			19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 83(a) of the Plant Variety Protection Act  <input checked="" type="checkbox"/> YES (If "yes", answer items 20 and 21 below) <input type="checkbox"/> NO (If "no," go to item 22)		
20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES?  IF YES, WHICH CLASSES? <input checked="" type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED			21. DOES THE OWNER SPECIFY THAT THE CLASSES BE LIMITED AS TO NUMBER OF GENERATIONS?  IF YES, SPECIFY THE NUMBER 1, 2, 3, etc. <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED  (If additional explanation is necessary, please use the space indicated on the reverse.)		
			22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?  <input type="checkbox"/> YES <input type="checkbox"/> NO  IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)		
23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)?  <input type="checkbox"/> YES <input type="checkbox"/> NO  IF YES, GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)					
24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.  The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.  Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.					
SIGNATURE OF OWNER			SIGNATURE OF OWNER  Thom E. Calver		
NAME (Please print or type)			NAME (Please print or type)		
CAPACITY OR TITLE		DATE		CAPACITY OR TITLE	
DATE		CAPACITY OR TITLE		DATE	

18A. 1- "N7101" (NTCPR92-100) was developed by Dr. Thomas E. Carter, Jr., Research Geneticist, USDA-ARS, Raleigh, North Carolina. N7101 is a small-seeded late-maturing soybean adapted to the South Atlantic Coast and Southeastern USA and developed for its potential use in the Japanese soyfoods market. N7101, a full sib of N7102, traces to a different F<sub>2</sub> plant from the same cross.

2- N7101 previously identified as 'NTCPR92-100' is an F<sub>6</sub>-derived selection from the cross of the small-seeded genotypes 'Vance' and 'Jizuka'. Vance was derived from the cross of 'Essex' and an unknown wild (*Glycine soja*, Sieb. and Zucc.) or semi-wild soybean. Jizuka is a Japanese soyfoods variety. Vance and Jizuka were crossed in 1987 at Raleigh, NC, and the F<sub>1</sub> was grown in 1988. The F<sub>2</sub> plants were grown at Clayton, NC in 1989 and fourteen late-maturing single plants were selected and harvested. The progeny from each F<sub>2</sub> plant were grown and bulk harvested at the USDA-ARS Tropical Agriculture Research Station (TARS), Isabela, PR, the following winter. The F<sub>4</sub> plants were planted at Clayton, NC in 1990, allowed to stand well past maturity, and then rated visually for resistance to shattering. Apparent resistant plants were harvested and assayed for 100-seed weight and visual appearance. Progeny rows of 31 promising F<sub>4</sub> plants were grown and bulk harvested at TARS the following winter. In 1991, individual F<sub>6</sub> plants were harvested and assayed for 100-seed weight and visual appearance at Clayton, NC. Approximately 200 F<sub>6</sub> plants were selected for progeny increase at TARS that winter and 28 were yield tested subsequently at Plymouth, NC in 1992.

3- In five years of testing N7101 has shown stable performance in relation to other specialty-type cultivars.

4- Off type hila color (slightly darker or lighter) can occur at a rate less than 2%.

18B. - N7101 has yellow seed with shiny luster and clear hila, purple flowers, gray pubescence, determinate growth habit, and narrow leaves. N7101 is resistant to Soybean Mosaic Virus, frog eye leaf spot (*Cercospora soja* Hara), and bacterial pustule (*Xanthomonas campestris* pv. *glycines* (Nakano) Dye) but susceptible to root knot (*Meloidogyne*) species of nematode. N7101 is moderately resistant to pod dehiscence (shattering) after maturation, but can exhibit more than 20% pod dehiscence if harvest is delayed extensively. In North Carolina, N7101 is lodging susceptible,

exhibiting an average lodging score of 3.9 and 3.7, respectively, compared with Cook's average score of 3.2 over two locations [a score of 1 indicates no lodging while 5 indicates a prostrate plant]. The small seed size and lower yield potential of N7101, compared to commodity-type varieties, limits its use to specialty purposes.

N7101 was yield tested at nine North Carolina locations from 1993 through 1997 and at five southern regional locations in 1994 as part of the USDA Cooperative Uniform Soybean Yield Trials. N7101 and N7102 trace to different F<sub>2</sub> plants from the same cross.

N7101 is later in maturing and more susceptible to pod shattering after maturity than N7102. N7101 has smaller seed and is more lodging susceptible than N7103.

18C. See attached form.

18D. None.

18E. See attached form.

REPRODUCE LOCALLY. Include form number and date on all reproductions.

Form Approved - OMB No. 0581-0055

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY  
PLANT VARIETY PROTECTION OFFICE  
BELTSVILLE, MD 20705

EXHIBIT C  
(Soybean)

OBJECTIVE DESCRIPTION OF VARIETY  
SOYBEAN (*Glycine max* (L.) Merr.)

NAME OF APPLICANT(S) ... USDA- Agricultural Research Service	FOR OFFICIAL USE ONLY PVPO NUMBER <b>200100285</b>
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)  3127 Ligon St. Box 7631 Raleigh NC 27607	VARIETY NAME N7101
	TEMPORARY OR EXPERIMENTAL DESIGNATION NTCPR92-100

PLEASE READ ALL INSTRUCTIONS CAREFULLY: Place the appropriate number that describes the varietal character of this variety in the boxes below.

Place a zero in the first box (e.g. 

0	9	9
---	---	---

 or 

0	9
---	---

) when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal

Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used:

Please answer all questions for your variety; lack of response may delay progress of your application.

A. MORPHOLOGY

Seed Shape:

<table border="1"><tr><td>2</td></tr></table>	2	1 = Spherical (L/W, L/T, and T/W ratios < 1.2)	2 = Spherical-Flattened (L/W ratio > 1.2; L/T ratio < 1.2)	L/W= 1.4 L/T= 1.0 T/W= 1.3
2				
	3 = Elongate (L/T ratio > 1.2; T/W ratio < 1.2)	4 = Elongate-Flattened (L/T ratio > 1.2; T/W ratio > 1.2)		

Seed Coat Color:

<table border="1"><tr><td>1</td></tr></table>	1	1 = Yellow	2 = Green	3 = Brown	4 = Black	5 = Other (Please Specify) _____
1						

Seed Coat Luster:

corrected per applicant's permission 10/17/2001

2 <table border="1"><tr><td></td></tr></table>		1 = Dull	2 = Shiny
			

Seed Size:

<table border="1"><tr><td>0</td><td>7</td></tr></table>	0	7	grams/100 seeds
0	7		

Hilum Color:

<table border="1"><tr><td>2</td></tr></table>	2	1 = Buff	2 = Yellow	3 = Brown	4 = Gray	5 = Imperfect Black
2						
	6 = Black	7 = Other (Please Specify) _____				

Cotyledon Color:

<table border="1"><tr><td>2</td></tr></table>	2	1 = Yellow	2 = Green
2			

# A. MORPHOLOGY (Continued)

## Seed Protein Peroxidase Activity:

☐ 1 = Low      2 = High

200100285

## Hypocotyl Color:

☐ 1 = Green  
'Evans' or 'Davis'

2 = Green with Bronze  
Bands below Cotyledon  
'Woodworth' or 'Tracy'

3 = Light Purple  
below Cotyledons  
'Beeson' or 'Pickett 71'

4 = Dark Purple extending to  
unifoliolate leaves ('Hodgson',  
'Coker', or 'Hampton 266A')

## Leaf Shape:

☐ 1 = Lanceolate      2 = Oval      3 = Ovate      4 = Other (Please Specify) \_\_\_\_\_

## Flower Color:

☐ 1 = White      2 = Purple      3 = White with a Purple Throat

## Pod Color:

☐ 1 = Tan      2 = Brown      3 = Black

## Pubescence Color:

☐ 1 = Gray      2 = Brown (Tawny)      3 = Light Tawny

## Plant Habit:

☐ 1 = Determinate      2 = Semi - Determinate      3 = Indeterminate      4 = Intermediate

## Maturity Group:

<input type="checkbox"/> 1	<input type="checkbox"/> 0	1 = 000	2 = 00	3 = 0	4 = I	5 = II
		6 = III	7 = IV	8 = V	9 = VI	10 = VII
		11 = VIII	12 = IX	13 = X	14 = XI	15 = XII

## Maturity Subgroup:

☐ 9 Please enter a value from 0 - 9

## B. DISEASE REACTIONS

0 = Not Tested      1 = Susceptible      2 = Resistant      3 = Tolerant

### Bacterial

☐ 2 Bacterial Pustule (*Xanthomonas campestris* pv. *glycines* (Nakano) Dye)

☐ 0 Bacterial Blight (*Pseudomonas syringae* pv. *glycinea* (Coerper) Young, Dye, & Wilkie)

☐ 0 Wildfire Blight (*Pseudomonas syringae* pv. *tabaci* (Wolf & Foster) Young, Dye, & Wilkie)

### Fungal

☐ 0 Brown Spot (*Septoria glycines* Hemmi)

6

B. DISEASE REACTIONS (Continued) 0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Tolerant

Seed Mottle (Soybean Mosaic Virus)

Nematode

200100285

Soybean Cyst Nematode (*Heterodera glycines* Ichinohe)

<input type="text" value="1"/> race 1	<input type="text" value="1"/> race 4	<input type="text" value="1"/> race 9
<input type="text" value="1"/> race 2	<input type="text" value="1"/> race 5	<input type="text" value="1"/> race 14 (former r. 4)
<input type="text" value="1"/> race 3	<input type="text" value="1"/> race 6	<input type="text"/> Other (Please Specify) _____

Lance Nematode (*Hoplolaimus columbus* Sher)

Southern Root Knot Nematode (*Meloidogyne incognita* (Kofoid & White) Chitwood)

Northern Root Knot Nematode (*Meloidogyne hapla* Chitwood)

Peanut Root Knot Nematode (*Meloidogyne arenaria* (Neal) Chitwood)

Reniform Nematode (*Rotylenchus reniformus* Linwood & Olivera)

Javanese Nematode (*Meloidogyne javanica* (Treub) Chitwood)

Other Nematode (Please Specify) \_\_\_\_\_

C. PHYSIOLOGICAL RESPONSES 0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Tolerant

Iron Chlorosis on Calcareous Soil

Phosphorus

Boron

Aluminum

Salt

Drought

Other (Please Specify) pod shattering after maturity



B. DISEASE REACTIONS (Continued) 0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Tolerant

Frogeye Leaf Spot (*Cercospora sojina* Hara)

☐  
☐

race 1

☐  
☐

race 2

☐  
2

race 3

☐

race 4

Other (Please Specify) Resistant to local races in the field

☐ 0

Target Spot (*Corynespora cassicola* (Berk. & Curt.) Wei)

☐ 0

Downey Mildew (*Peronospora trifoliorum* var. *manchurica* (Naum.) Syd. ex Gäum)

200100285

☐ 0

Powdery Mildew (*Microsphaera diffusa* Cke. & Pk.)

☐ 0

Brown Stem Rot (*Phialophora gregata* (Allington & Chamberlain) W. Gams.)

☐ 0

Stem Canker (*Diaporthe phaseolorum* (Cke. & Ell.) Sacc. var. *caulivora* Athow & Caldwell)

☐ 0

Pod and Stem Blight (*Diaporthe phaseolorum* (Cke. & Ell.) Sacc. var. *sojae* (Lehman) Wehm.)

☐ 0

Purple Seed Stain (*Cercospora kikuchii* (T. Matsu. & Tomoyasu) Gardener)

☐ 0

Rhizoctonia-Root Rot (*Rhizoctonia solani* Kühn)

Phytophthora Root Rot (*Phytophthora megasperma* Drechs. f. sp. *glycinea* (Kuan & Erwin))

☐ 0  
☐ 0  
☐ 0  
☐ 0  
☐ 0  
☐ 0  
☐ 0  
☐ 0

race 1  
race 2  
race 3  
race 4  
race 5  
race 6  
race 7

☐ 0  
☐ 0  
☐ 0  
☐ 0  
☐ 0  
☐ 0  
☐ 0  
☐ 0

race 8  
race 9  
race 10  
race 11  
race 12  
race 13  
race 14

☐ 0  
☐ 0  
☐ 0  
☐ 0  
☐ 0  
☐ 0  
☐ 0  
☐ 0

race 15  
race 16  
race 17  
race 18  
race 19  
race 20  
race 21

☐ 0  
☐ 0  
☐ 0  
☐ 0  
☐ 0  
☐ 0  
☐ 0

race 22  
race 23  
race 24  
race 25  
race 26  
Other (Please Specify) :

☐ 0

Bud Blight (Tobacco Ringspot Virus)

☐ 0

Yellow Mosaic (Bean Yellow Mosaic Virus)

☐ 0

Cowpea Mosaic (Cowpea Chlorotic Virus)

☐ 0

Pod Mottle (Bean Pod Mottle Virus)

8

**D. INSECT REACTIONS**

0 = Not Tested

1 = Susceptible

2 = Resistant

3 = Tolerant

☐Mexican Bean Beetle (*Epilachna varivestis* Mulsant)☐Potato Leaf Hopper (*Empoasca fabae* (Harris))

200100285

☐

Other (Please Specify) \_\_\_\_\_

**E. HERBICIDE REACTIONS**

0 = Not Tested

1 = Susceptible

2 = Resistant

☐

Metribuzin

☐

Bentazone

☐

Sulfonylurea

☐

Glyphosate

☐

Glufosinate

☐

Pendimethalin

☐

Other (Please Specify) \_\_\_\_\_

**F. TRANSGENIC COMPOSITION**

Has the development of the Subject Variety included the insertion or removal of genetic material?  
If yes, please complete the following information requests\*. Use additional pages if necessary.

☐

YES

☒

NO

1. Please state the vector's name:

2. Please state the vector components:

3. Please describe the genetic material successfully transferred into the Subject Variety:

4. Please describe the insertion protocol:

\* A literature citation(s) explaining the four information requests above may be an acceptable alternative to completion of the "Transgenic Composition" portion of this form.

**G. BIOCHEMICAL MARKERS**

Please describe any biochemical information here which you believe will be helpful in further describing the Subject Variety (e.g. Simple Sequence Repeats, Restriction Fragment Length Polymorphisms, Isozymic Characterization). Use additional pages if necessary.

9

## H. COMMENTS

200100285

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995:

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) USDA- Agricultural Research Service	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER NNTCPR92-100	3. VARIETY NAME N7101
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) 3127 Ligon St. Box 7631 Raleigh NC 27607	5. TELEPHONE (include area code) (919) 513-1480	6. FAX (include area code) (919) 856-4598
8. Does the applicant own all rights to the variety? Mark an "X" in appropriate block. If no, please explain.	7. PVPO NUMBER 200100285 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	

9. Is the applicant (individual or company) a U.S. national or U.S. based company? ☐ YES ☒ NO  
If no, give name of country

10. Is the applicant the original owner? ☒ YES ☐ NO If no, please answer one of the following:

a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?  
N/A ☐ YES ☐ NO If no, give name of country

b. If original rights to variety were owned by a company(ies), is(are) the original owner(s) a U.S. based company?  
N/A ☐ YES ☐ NO If no, give name of country

11. Additional explanation on ownership (if needed, use reverse for extra space):

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call 1-800-245-6340 (voice) or (202) 720-1127 (TDD). USDA is an equal employment opportunity employer.

STD-470-E (07-87) (Destroy previous editions).

Electronic version designed using WordPerfect InForms by USDA-AMS-IMB.